

First named inventor: Hardisty
Serial no. 10/615,862
Filed 7/9/2003
Attorney docket no. 10011759-2

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In the claims

The claims have not been modified since the previously filed preliminary amendment.

Claims 1-10 and 21-30 are pending.

1. (original) A portable printer comprising:
a top cover having an inside surface;
a bottom cover having an inside surface on which a sheet is positionable;
one or more rail units disposed on the inside surface of the top cover; and,
a carriage assembly movably connected to the one or more rail units such that the carriage assembly is able to move horizontally and vertically over the sheet, and print on substantially any part of the sheet, without movement of the sheet.

2. (original) The portable printer of claim 1, wherein the carriage assembly comprises:
a carriage unit;
a print head disposed on a bottom surface of the carriage unit;
a motor coupled to the carriage unit to move the carriage assembly horizontally; and,
a mechanism coupled to the carriage unit to move the carriage assembly vertically.

3. (original) The portable printer of claim 2, wherein the print head is an inkjet-type print head, and the carriage assembly further comprises one or more wells in which corresponding ink capsules are insertable.

4. (original) The portable printer of claim 2, wherein the motor is a worm-gear motor.

5. (original) The portable printer of claim 2, wherein the mechanism comprises:

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a watch-spring catch mechanism that winds to store sufficient energy to move the carriage assembly vertically; and,

a drag-engage mechanism that winds the watch-spring catch mechanism as the carriage assembly horizontally approaches an end of the portable printer.

6. (original) The portable printer of claim 1, wherein each of the one or more rail units has a plurality of gear teeth to engage the carriage assembly.

7. (original) The portable printer of claim 1, wherein the one or more rail units comprises a fixed rail unit and at least one movable rail unit, each of the at least one movable rail unit situated to a side of the fixed rail unit, such that the carriage assembly moves over the sheet horizontally substantially via the fixed rail unit and moves over the sheet vertically substantially via the at least one movable rail unit.

8. (original) The portable printer of claim 7, wherein each of the at least one movable rail unit comprises a wire leaf spring to maintain alignment with the fixed rail unit.

9. (original) The portable printer of claim 1, wherein the one or more rail units essentially consists of a fixed rail unit.

10. (original) The portable printer of claim 1, wherein the portable printer is removably attachable to a docking station storing one or more batteries to power the portable printer.

11.-20. (cancelled)

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21. (previously presented) A printer comprising:
a top cover having an inside surface;
a bottom cover having an inside surface on which a sheet is positionable;
one or more rail units disposed on the inside surface of the top cover; and,
a carriage assembly movably connected to the one or more rail units such that the carriage assembly is able to move horizontally and vertically over the sheet, and print on substantially any part of the sheet, without movement of the sheet, the carriage assembly having a single print head.
22. (previously presented) The printer of claim 21, wherein the carriage assembly comprises:
a carriage unit having a bottom surface on which the single print head is disposed;
a motor coupled to the carriage unit to move the carriage assembly horizontally; and,
a mechanism coupled to the carriage unit to move the carriage assembly vertically.
23. (previously presented) The printer of claim 22, wherein the single print head is an inkjet-type print head, and the carriage assembly further comprises one or more wells in which corresponding ink capsules are insertable.
24. (previously presented) The printer of claim 22, wherein the motor is a worm-gear motor.
25. (previously presented) The printer of claim 22, wherein the mechanism comprises:
a watch-spring catch mechanism that winds to store sufficient energy to move the carriage assembly vertically; and,
a drag-engage mechanism that winds the watch-spring catch mechanism as the carriage assembly horizontally approaches an end of the portable printer.

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26. (previously presented) The printer of claim 21, wherein each of the one or more rail units has a plurality of gear teeth to engage the carriage assembly.

27. (previously presented) The printer of claim 21, wherein the one or more rail units comprises a fixed rail unit and at least one movable rail unit, each of the at least one movable rail unit situated to a side of the fixed rail unit, such that the carriage assembly moves over the sheet horizontally substantially via the fixed rail unit and moves over the sheet vertically substantially via the at least one movable rail unit.

28. (previously presented) The printer of claim 27, wherein each of the at least one movable rail unit comprises a wire leaf spring to maintain alignment with the fixed rail unit.

29. (previously presented) The printer of claim 21, wherein the one or more rail units essentially consists of a fixed rail unit.

30. (previously presented) The printer of claim 21, wherein the printer is a portable printer and is removably attached to a docking station storing one or more batteries to power the portable printer.